# CONTENTS

## *Tectonophysics* Volume 168

**Special Issue on Ophiolites and Crustal Genesis in the Philippines (edited by M.F.J. Flower and J.W. Hawkins)**

Preface ..... VII

Geology of the Zambales ophiolite, Luzon, Philippines
Rossman, D.L. (Menlo Park, Calif., U.S.A.), Castañada, G.C. and Bacuta, G.C. (Quezon City, Philippines) ..... 1

Compositional heterogeneities in upper mantle peridotites from the Zambales Range Ophiolite, Luzon, Philippines
Evans, C. (Houston, Tex., U.S.A.) and Hawkins, J.W., Jr. (La Jolla, Calif., U.S.A.) ..... 23

Geochemistry of mafic rocks from the Coto Block, Zambales ophiolite, Philippines: trace element evidence for two stages of crustal growth
Geary, E.E., Kay, R.W., Reynolds, J.C. and Kay, S.M. (Ithaca, N.Y., U.S.A.) ..... 43

Zambales ophiolite, Philippines, I. Geology and petrology of the critical zone of the Acoje massif
Abrajano, T.A., Pasteris, J.D. (St. Louis, Mo., U.S.A.) and Bacuta, G.C. (Ithaca, N.Y., U.S.A.) ..... 65

Serpentinization fo the Acoje massif, Zambales ophiolite, Philippines: hydrogen and oxygen isotope geochemistry
Sturchio, N.C., Abrajano, T.A., Jr. (Argonne, Ill., U.S.A.), Murowchick, J.B. and Muehlenbachs, K. (Edmonton, Alta., Canada) ..... 101

Identification of an Early Cretaceous ophiolite in the Camarines Norte–Calaguas Islands basement complex, eastern Luzon, Philippines
Geary, E.E. and Kay, R.W. (Ithaca, N.Y., U.S.A.) ..... 109

The Angat ophiolite, Luzon, Philippines: lithology, structure, and problems in age interpretation
Arcilla, C.A. (Chicago, Ill., U.S.A.), Ruelo, H.B. and Umbal, J. (Quezon City, Philippines) ..... 127

Petrography and chemistry of high-Mg, biotite-rich, pillow lavas from southwestern Panay, Philippines
Sta. Cruz, J.R. (Quezo City, Metro Manila, Philippines), Letargo, M.R.R. and Samaniego, C.L. (Cincinnati, Ohio, U.S.A.) ..... 137

Submarine arc volcanism in the southern Mariana Arc as an ophiolite analogue
Stern, R.J. (Richardson, Tex., U.S.A.), Bloomer, S.H. (Durham, N.C., U.S.A.), Ping-Nan Lin (Richardson, Tex., U.S.A.) and Smoot, N.C. (St. Louis, Mo., U.S.A.) ..... 151

Paleomagnetism of the Zambales ophiolite, Luzon, northern Philippines
Fuller, M., Haston, R. (Santa Barbara, Calif., U.S.A.) and Almasco, J. (Chicago, Ill., U.S.A.) ..... 171

A preliminary Neogene paleomagnetic data set from Leyte and its relation to motion on the Philippine fault
Cole, J., McCabe, R., Moriarty, T., Malicse, J.A. (College Station, Tex., U.S.A.), Delfin, F.G., Tebar, H. and Ferrer, H.P. (Metro Manila, Philippines) ..... 205

Plate convergence and deformation, North Luzon Ridge, Philippines
Lewis, S.D. and Hayes, D.E. (Palisades, N.Y., U.S.A.) ..... 221

*Research Papers*

Belemnites, strain analysis and regional tectonics: a critical appraisal
Lloyd, G.E. (Leeds, England) and Ferguson, C.C. (Nottingham, England) ..... 239

Grain growth kinetics in olivine aggregates
Karato, S. (Tokyo, Japan) ..... 255

Remarks on the derivation of the paleostress system from inferred faults on deep seismic reflection records
McBride, J.H. (New Orleans, La., U.S.A.) ..... 275

Comparison of fluid inclusion decrepitation and acoustic emission profiles of Westerly granite and Sioux quartzite
Hall, D.L. and Bodnar, R.J. (Blacksburg, Va., U.S.A.) ..... 283

A north–south seismic profile across the Caledonian Suture zone in Ireland
Lowe, C. and Jacob, A.W.B. (Dublin, Ireland) ..... 297

Bayesian interval estimation of the parameter *b* for grouped magnitudes
Tinti, S. (Bologna, Italy) ..... 319

Thickness of the lithosphere beneath the Baikal rift zone and adjacent regions
Zorin, Y.A., Kozhevnikov, V.M., Novoselova, M.R. and Turutanov, E.K. (Irkutsk, U.S.S.R.) ..... 327

Contents Volume 168 ..... 339